

From the Author

# NEW METHOD

OF CURING THE

## S M A L L - P O X ;

BY WHICH

That Disease, taken in the Natural Way, is rendered as  
void of Danger as when received from INOCULATION.

WITH A SPECIMEN OF

MISCELLANEOUS OBSERVATIONS

O N

## MEDICAL SUBJECTS.

Translated from the LATIN OF

JOHN FREDERIC CLOSS, A. M.  
Philos. & Med. Doct.

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By THOMAS HOULSTON, M. D.

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*Numquam aliud natura, aliud sapientia dicit.*

JUVENAL.

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# NEW METHOD

OF TEACHING

## EXERCISES

BOOK

THE NEW METHOD OF TEACHING EXERCISES  
BY THE AUTHOR OF THE NEW METHOD OF TEACHING

WITH A NEW INTRODUCTION

REVISED AND ENLARGED EDITION

BY THE AUTHOR

NEW YORK

1880

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# ADVERTISEMENT.

**T**HIS little treatise fell into my hands above seven years ago, at Leyden, and altho' the doctrine it inculcates is not so much new in itself, as in the extension and application of it, I thought it deserving of being translated. It was soon after published in London (without a name) when it met with some share of approbation. The method, also, here laid down, being adopted by several, has not failed to recommend itself by its success.

As the Disease, herein treated of, has, for some time past, exerted its fatal influence in this and the neighbouring towns, the present juncture seemed particularly to plead for this treatise being again offered to the public. And the same motives of humanity, which induced me formerly to translate it, urge me now to revive and adopt it ;—happy, if, by this means, I may contribute to prevent a single loss, or remove a moment's fears.

The reader is requested to excuse or correct the many errors of the press, occasion'd by my not having been present during the printing. In the list of them which follows, such as impair or alter the sense are distinguished by a larger type.

*T. H.*

LIVERPOOL,

1774.



# E R R A T A.

Page.	For	Read.
2. line 12	necassary	necessary
5. note (b)	Uratile	Uratisl.
6. line 25.	Extirpartion	extirpation
	note (f) extirpatione	extirpatione
	(k) Tubingeu	Tubingen
9. line 16	assent	assert
10.	18. a blistering	blistering
13.	17. never	ever
15.	5. coolling	cooling
16.	14. produces	produce
18.	4. kenal	renal
	8. them	then
19.	3. which he	by which he
	12. ability and	ability, and
	20. attenuate, the	attenuate the
20.	5. later when	later, when
	23. scarely	scarcely
	29 revulsions	revulsion
21.	16. beng	being
	30. and in	and when in
24.	18. two	too
25.	31. involucrums	involucrum
	33. unaimonfly	unanimously
27.	26. softened	mitigated
	note (b) Diaphoreticis	Diaphoreticis
28. line 4.	Lintseed	Linseed
	19. Blockead	blockhead
	note (g) Forestrum	Forestum
31. line 11.	ncrease	increase
32.	8. who	when
	15. fewer the	fewer, the
	17. Delirum	Delirium
35.	16. cannot	cannot but
	ult. and we	and that we
36. note (c)	conex	corneæ
37. line 2.	operate	open at
	7. and that	that
40. note (g)	Oes.	Obs.
43. line 16.	humours	humour
52.	10. after	who, after
54.	17. therefore	thus
	20. Fungous	Fungus
59.	7. ago and	ago. And
61.	6. frixions	frictions
	7. Melliot	Mellilot
	34. Proximate	proximate Cause
62.	2. but as	but, as
	31. Patechial	Petechial
63.	10. same only	same, only
	passim. variolus	variolous
	the pox	the pocks
	Spicula	Spiculæ
	Comma's misplaced or omitted.	

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T H E  
TRANSLATOR'S  
P R E F A C E.

**I**T is universally remarked by foreigners, that the English nation are but little conversant with books printed in any other country and language than their own. This observation, in general, must be admitted, and certainly pays the highest tacit compliment, to the merits and abilities of our own authors. Yet, as there cannot but be many useful discoveries made abroad, the removing these two impediments to their being well known in England, is a sufficient excuse for a translator.


INOCULATION, now so frequently and successfully practised, has deprived the Small-Pox of much of its danger: but, this aid cannot be had, after a person is infected in the natural way. The following Treatise has for its object, the rendering the Small-Pox void of danger, and that at a time when Inoculation would come too late. The importance of this, is too self evident to need enlarging upon. The success of it will appear from the author's account of the trials he has made of it, and of their consequences. I have also known it tried by another ingenious Physician, who informs me it has hitherto answered well with him. There are some Hypotheses in the book, of which I differ in opinion from the author. Yet, to have given an extract of so short a treatise in which a new method



of treatment is particularly laid down, would have been absurd and improper. To give a translation equal to the original, would be very difficult, and employ more time than should be bestowed in translating a practical subject, as in that, the matter is of infinitely more consequence than the manner. And, therefore, I have been careful, and consulted the author to avoid misunderstanding him, but have been more desirous to convey his meaning, than to keep to his expressions; some of which consist in beautiful metaphors, which translated would have a stiffness, apparent I fear in such, as I have endeavoured to retain. The learned author added, at the end of this treatise, several Miscellaneous Medical Observations, which, if approved, he promises to continue. I have given a part of them, and chosen such as are most curious and useful. It will be necessary to remark, that in Germany the Barbers are now the Surgeons, as was formerly the case with us. If this translation should be serviceable to my countrymen, either by making the original read, or the method known and practised with success by such as have difficulty, or no opportunity of reading that, it will fully answer all my views.



A New METHOD  
OF CURING  
The SMALL-POX.  
SECT. I.

 BOERHAAVE (*a*) has long since wisely asserted, *that the recovery of every person from the Small-Pox, treated in the common method, was solely owing to nature.* This was afterwards fully and clearly demonstrated, in a treatise, on that subject, (*b*) by TRALLES, a Physician of Breslau; and, at this time, daily experience abundantly confirms the truth of this assertion. Since I first began to practice Physic, I made use of no other method than that of SYDENHAM, BOERHAAVE, and HAEN, except that I followed the advice of TRALLES, (*c*) and TISSOT, (*d*) in not exhibiting opium, and in its stead I gave, with the other antiphlogistics, the mineral acids, which he so strenuously, and with so much justice, recommends (*e*). From this manner of treatment, I perceived the most advantageous effects. But notwithstanding I pursued this excellent method with the utmost attention, yet it could

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(*a*) Aphorism. de cognosc. et curand. morb. Aph. 1403.

(*b*) Diff. epist. de methodo medendi variolis, haecenus cognita, sæpe insufficiente, magno pro inoculatione argumento Uratile. 1761.

(*c*) Tract. de usu opi salubri et noxio in morborum medela. Sect. 2. Cap. 2. § 17. pag. 125. lqq. et Diff. cit. § 18. pag. 95.

(*d*) Epist. de variolis, apoplexia et hydrope. pag. 4. lqq.

(*e*) Loc. cit. pag. 43. lqq.



could not always prevent the patients being reduced to the greatest danger, or entirely sinking under the disease. Seeing, therefore, the imperfection of our art in this particular, I have often wished, that I could bring Inoculation into general use, the excellence and innocence of which, has been proved by many learned men, beyond a shadow of doubt. I was grieved, that, thro' those prejudices, yet so deeply rooted in the minds of most men, there was little reason to hope its public introduction, without the interposition of government. In the mean time the little treatises of KRAUS (*f*) and MEDICUS (*g*) threatening the total extirpation of the Small-Pox, came into my hands, I thought that I should there find some specific, some antidote, by the speedy application of which, at the beginning, the disease, and all its symptoms, might be totally destroyed. For I knew that BOERHAAVE (*h*) had admitted the possibility of such a remedy, and had publicly exhorted the Physicians to endeavour to discover it. Nor could the reasonings of MEAD (*i*) induce me to despair of finding such an one. But I soon found, that that antidote was as yet as little known by these two authors, as by myself and other practitioners, nor could I with reason hope from their endeavours, any other success than from the Hypothesis of LEIBNITZ (*k*) for the certain extirpation of the plague. It remain'd only then that I should either endeavour to bring to greater perfection, the received method, or to find out some other more efficacious: after long consideration on this subject, blisters came into my thoughts. I remembered, that as often as I had

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(*f*) Dissert. de variolarum. extirpatione Lips. 1761.

(*g*) Sendschreiben von der Ausrottung der Kinder-Blattern. Frankf. und Leipz. (Mannheim) 1763.

(*h*) Aph. 1391.

(*i*) De variolis. Cap. 3.

(*k*) In an Academical Disputation on this subject, held at Tubingen, 1721, this was examined by the famous Physician, and Philosopher of his time, ELIAS CAMERARIUS.



had applied these in the first stage of the Small-Pox, on account of anomalous symptoms, preceding the eruption, the progress of the disease had been always as mild as could be wished; others declare, that they have made the same observation. TRALLES (1) who is otherwise a great hater of blisters, in acute Inflammations, asserts *that he has often seen, when either vehement convulsions, or drowsy affections, before the breaking out of the Small-Pox, in the beginning or progress of the primary fever, have required a blister, the disease has followed milder.* Upon accurately considering then the actions of blisters upon the human body, and comparing it with the true nature of the disease, I was soon convinced, that they would be the fittest remedy to restrain its violence. And a little afterwards, a good opportunity offered for trying this method on several patients. It is surprising how excellently it succeeded. For both old and young, had the Small-Pox so mildly, that it seem'd to rival inoculation: But I did not consider these experiments, though pretty numerous, as fully sufficient to confirm the efficacy of my method. For, to say the truth, the kind of the Small-Pox at that time spreading, was a very favourable one, and few were destroy'd by it. Hence I was in some doubt, whether the innocence of the disease in my patients was owing to the favourable kind, or to the method I applied. Therefore when another kind was rife, and that a very dangerous one (for many were cut off, who were treated with the greatest care, by the ablest Physicians, well versed in the antiphlogistic method) I again tried it, and in these cases with pleasure observed effects, perfectly similar to the former; and being now sufficiently convinced, that every impending danger from the Small-Pox is effectually guarded against by this method, I thought it unjust, longer to delay its publication. Nor do I doubt, but such as are anxious for the improvement  
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(1) Diff. Cit. § 22. page 115.



of our art, and the safety of the unhappy sick, will favourably receive these my endeavours.

## S E C T. II.

**I** Shall, in the first place, give a full description of my method. As soon as I am sent for to a sick person, and perceive in him the signs of the Small-Pox coming on; having previously, if there be no particular reasons to the contrary, opened a vein in the arm, I apply immediately a blistering plaister, sufficiently large, to the calf of each leg, which has been before wash'd with warm water, and well rubbed with rough warmed towels. Physicians generally err in the use of this noble remedy, in that, they almost only employ them, when the greatest danger is present. (a) For who applies blisters in the Small-Pox, till in a manner forced to it, by convulsions, stupor, or some very troublesome symptom? 'Tis no wonder, therefore, that the hope conceived from thence frequently disappoints us, and that the patient nevertheless is destroy'd. Hence it happens, that many hold blisters in the greatest abhorrence, and are well convinced that they should not be order'd, unless in cases quite desperate and given over, and this is the reason, why you so often hear parents and friends obstinately opposing their application, saying, *Why should we torment the poor patient any longer? For he must die after all.* When I have sometimes replied, that as yet all was safe, nor was there any urgent danger; I have received this answer, *Your words don't agree with your actions; for why would you lay on a blister if you did not despair of his life?* Indeed the earlier I apply blisters, the

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(a) STAHL hath already remark'd this fault before me, in his *Diff. de motu sanguinis, a crasi et viis non pendentibus, vitiis prudenter tractandis.* Hal. Magd. 1709 hab. § 63. And wisely MEZGER, in *Thes. chiriatr. Syllog.* 7. advises to apply to these in time; they are the principal of all things.



the happier effect do I perceive produced by them. For whatever remedy is of service in a disease which is come to its height, that must necessarily be of much more benefit at the beginning. I therefore never wait till the most troublesome symptoms arise, but as soon as I find the slightest symptoms of fever, I order blisters to be immediately applied. Some perhaps would think it safer, to wait a little till the eruption begins to appear: For it frequently happens, that, whilst the Small-Pox is very ripe, children, who have not yet had the disease, are affected with symptoms similar to those preceding the Small-Pox, yet never have any eruption: And that therefore there is some reason to fear, lest the blister may be unseasonably applied, and produce some bad effect upon the body. This objection I confess is specious. Nor can I assent that there are any symptoms in this, common to no other disease, and that therefore it may not easily happen, that the Physician, when he suspects the Small-Pox is beginning, may be mistaken. And this hath sometimes happened to that respected practitioner of his time, ROSINUS LENTILIUS (b), that children out of order, have had all the symptoms of the Small-Pox coming on, when the event has proved that they arose from Teething. I own that the same has happened to me more than once. And as PUBLIUS has it: *Cuius potest accidere, quod cuicumque potest.* Yet still I would not on that account defer the application of blisters. LENTILIUS (c) had applied a blister to one of his patients, who was so far from perceiving any bad effect from it, that he grew every day better. Nor have I ever found blisters of disservice to any of my patients. Nay farther, when I consider and reason upon the diseases, which counterfeit

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(b) Eteodrom. medico-pract. Page 132, 133. et pag. 201. 204. 207. seq. 443. et pag. 470.

(c) Loc. cit. pag. 470.

the beginning of the Small-Pox, I readily perceive, that they will be useful in most, hurtful in none. To grant a great deal then, they may be sometimes found unnecessary or superfluous. But I trust that will prevent no one's more early use of them, who shall learn from the following pages, how many advantages they promise.

### S E C T. III.

**T**H E blisters I commonly prepare thus: I take of Melilot, or any other emollient emplaster, as much as is requisite, and after having worked it up with Acetum Scill. and spread it on Leather or strong Linen, I sprinkle it over well with choice Cantharides, fresh powdered. I have always found blistering plaisters made in this manner, wonderfully efficacious, when on the contrary, those got from the shops, having been generally long prepared, have often proved either too weak, or perfectly inactive. For, as the skillful LENTILIUS (*a*) truly observes, *a blistering plaister does not bear age, but by keeping, the virtue of the Cantharides is lost.* The effect of these blisters is not only more certain, but more speedy. What is scarcely performed in 12 or 16 hours by the common blisters, even when strong enough, is effected by these in half that time. For here, the Spiculæ of the Cantharides are applied naked to the body, not as there, enveloped and blunted, by other things added. The admixture of Acet. Scill. with the Emp. Melilot. accelerates in some measure their action. Many indeed are of opinion with ORTLOB (*b*), that the strength of the Cantharides is lessened by it. But  
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(*a*) Loc. cit. pag. 1264.

(*b*) Exercitat. medico-chirurg. de vesicatoriis. Lips. 1696. edit.  
§ Vinegar, whether it be simple, or that of Squills, rather destroys them (i. e. Cantharides.)



such are alike contradicted both by reason and experience. Concerning that matter I appeal to the testimony of the learned CARTHEUSER (c) who writes thus : *By repeated Chemical Experiments it has been proved — That Acids encrease the blistering property of the powder of Cantharides. I know indeed that some maintain a contrary opinion, and reckon Vinegar amongst the correctors : But I also know, that their opinion is contradictory to experience, which hath long since taught, that Vinegar added to blistering plaisters, does not diminish, but rather encreases their activity.* How can Vinegar temper the Acrimony of Cantharides, being itself sufficiently acrid, particularly that of Squills ? Indeed those who think to render Cantharides milder by Acids, are guilty of as great absurdity, as were the Ancients in thinking, that opium was corrected by round, long, black and white Pepper, Ginger, Zedoary, Pellitory, Squills, Euphorbium, Myrrh, Camphor, Castor, Cinnamon, Cloves, and other similar, hot, acrid, aromatic substances. But these last are more excusable, that not knowing the very warm nature of Opium, they considered it as a medicine of proclaimed coldness (d) ; but the latter all unanimously allow to Cantharides a nature, acrid, stinging, hot, and almost fiery. It follows then that the action of our blisters is rendered speedier by the addition of Acet. Scill. Besides the washing and rubbing the calves of the legs, previous to their application, is assisting. For that, guards against any oily matter sticking to the skin, which might blunt the sharpness of the Spiculæ : By this, also it is rendered warm, and the pores are opened, that there may be a free passage through them.

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S E C T.

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(c) Fundament. mater. medic. Part I. Sect. 7. Cap. X. § 3.

(d) MACROBIUS uses this expression *Saturnal. Lib. 7. Cap. 5.*

## S E C T. IV.

**I** Fasten the Leather upon which the Emplaister is spread, with a close bandage to the feet. This is the more necessary, if the fever be already so strong, that the body and limbs of the patient are very violently agitated, from anxieties, delirium, and convulsions. For if this be neglected, or made loosely, it may easily happen, that the blister, laid on, moves from its place, or entirely falls off. And then in general it not only produces no proper effect, but causes more and greater pain to the patient. I remember several examples of blisters slipping down, producing an infinite number of small blisters, causing an exquisite sense of heat in the back, breast, abdomen, genitals, and elsewhere. And I believe there are few Physicians, who have not made the same observation. The binding on, ought not only to be made tight, but also with care; lest the leather being pressed downwards, should hinder the rising of the blister. This may be easily prevented, by an *Encherefsis* common with me which is such, that I pass proper fillets through the upper and lower edge of the leather, by which it is bound to the feet.\*

## S E C T. V.

**I** Endeavour to keep open the Ulcer produced by the Cantharides, and to prevent its skinning over, not for a day or two, but through the whole course of the disease, which I effect principally by two methods. When I suspect that the former blister has not sufficiently done its business, I lay on the Emplast. album coccum, or—de Spermate Ranarum, or—de Minio, sometimes,

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\* All these Inconveniencies are removed without Bandages by spreading the edge of the Leather with Sticking-Plaster.



times, after the example of WEDELIUS (*a*) mixed with an equal quantity, at other times after that of LENTILIUS (*b*) with a fourth part of the common Emplastr. Vesicat. fresh made. But when I understand that the effect produced by them is sufficient, I apply only Theriaca, spread upon linen like a plaister. For this, since 'tis nothing but a collection of various acrid spices, roots, herbs, seeds, resinous gums, and balsams, cannot but by sharply stimulating excoriated parts, produce a continual flux of humours. Indeed in wounds and ulcers, I have found nothing more useful, to excite, promote, and keep up Suppuration. Nor are the parents and friends, who are used otherwise, from an ill-timed compassion, to be importunately urgent for the healing of the Ulcers, averse to the application of Theriaca, induced by that false notion, which I don't wish to remove, that Opiates never exert an Anodyne quality, as well when applied externally, as when given internally.

## S E C T. VI.

**A**T the same time, I am careful that those wise admonitions and instructions, given by SYDENHAM, HAEN, and TISSOT, concerning the air, lying, sitting-up, food, and drink of the patients, be most exactly observed. The bed-chambers in which they lie, are chosen as large as may be, and if possible, rather with an East, or North, than with a West, or South aspect, in which a temperate and pure air is procured by every means. It is never allowed for several persons to stay, even a little while, with the patient, much less to form a circle round the bed in which he lies. The Stools and Urine are immediately removed.

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(*a*) De facult. medicam Lib. 1. Sect. 2. Cap. 6.

(*b*) Loc. cit. pag. 130 et 1264.

removed. All things emitting Smoke are avoided carefully, in the room of which is substituted, Vinegar thrown upon hot Stone, that it may become vapor. Often in the day, especially morning and evening, one or both windows, and at the same time the room door are opened. In the Spring and Summer, they are kept open day and night. In great heats, either cold Water or Vinegar is sprinkled on the floor and wainscot, and pots filled with Water, in which green Ash or Willow boughs are put, are placed in different parts of the room. In the Winter months, the warmth of the air is rather kept up by the help of chimnies, than of stoves. It can be scarcely expressed how salutary these former are. For a bright fire lighted in them, as PRINGLE (a) justly observes, answers the end of a perpetual Ventilator. Whence it clearly and evidently appears, how great effect they have, in hindering or amending the putrefaction of the air. The patients are not overwhelmed with bed-cloths and pillows, but are covered with those they used in health, or even lighter. The curtains remain undrawn. The posture is so ordered, that the trunk be erect, and the legs bending down. The head is only very lightly covered, but the feet are kept warmer. Every day, unless a very inclement season forbids, they rise, and for several hours either sit up in a chair, or walk about the chamber. Children not yet able to walk, are carried in the arms of the nurse or a maid. And whilst they are up the bed is made, and exposed to the fresh air, and other sheets are put on, which have been lain in some time, by a person in health. The diet is low, and very little nourishing. All animal food is forbid. Not the weakest meat broth is allowed, except mixed with juice of lemons, or what is better with vinegar.

Ptisans.

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(a) *Observations on the diseases of the Army. Part 2. Chap. 3.*  
§ 3.



Ptisans of barley, or oats, with honey and nitre, stewed apples or pruens, are almost the only things allowed of. For drink, which I order to be given in abundance, besides Ptisan, they use decoctions of emollient and cooling roots and herbs, tea, infusions of Elder flowers, or Linden flowers, with milk, emulsions of the cold seeds, free from rancidity, with syrup of marsh-mallows and nitre, toast and water, butter-milk, whey, or milk mixed with vinegar. If the belly be bound above two days, we must give an emollient clyster, to which nitre is added. I find no occasion for other remedies.

## S E C T. VII.

**T**O the description of the method, hitherto laid down, I shall now subjoin an enumeration of the advantages resulting from blisters. Those which I have experienced, are nearly these.

I. They either put an end to, or certainly remarkably mitigate, the primary fever of the Small-Pox.

II. They promote the breaking-out of the Pox.

III. They prevent their sinking in.

IV. They render the eruption less.

V. They keep them from the face.

VI. They defend the eyes from all injury.

VII. They preserve the beauty of the face safe and unhurt.

VIII. They either entirely prevent, or render very mild, the secondary fever.

IX. They hinder the leavings of the Small-Pox.

I shall now proceed to explain and illustrate each of these, separately.

## S E C T. VIII. E F F E C T I.

*Blisters put an end to, or certainly remarkably mitigate, the primary Fever of the Small-Pox.*

**I** Imagine that most people will immediately doubt of, or absolutely deny this Effect, as being persuaded, that Cantharides have rather a power of producing, than removing the fever: This is attributed to them in express terms, and without any limitation, by these three great men, BOERHAAVE (*a*), TRALLES (*b*), and TISSOT (*c*), as well as by some hundred others. Nor can I, who have sufficiently tried them, deny it. But that this is unavoidable, constant, and always holds good, I dare without presumption deny. And if I am not much mistaken, the illustrious BARON VAN SWIETEN (*d*) makes for me, thus softening the expression of his PRECEPTOR, that he affirms only, *that Cantharides unseasonably applied produces Fever*. Every one knows that the action of no medicine is absolute, but that it always follows the state of the bodies to which it is applied. And that these may be not only different, but even contrary, I believe no one will deny. It is evident therefore, that Effects perfectly opposite and repugnant to each other, may follow the application of one and the same medicine. Nor are  
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(*a*) Commentar. ad Aphor. 75. I wonder, that famous men have so often commended blisters. For, by themselves they cause a Fever.

(*b*) Diff. cit. § 18. pag. 102. If ever blisters are of use in the cure of the Small-Pox, tis only, when the Fever is languid, and when it would be of advantage to the patient, to rouse up more strongly the circulation, to raise and excite, not to repress, the Fever.

(*c*) Epist. cit. pag. 40. These are the properties of Cantharides, — they increase — Fever, Inflammation, and Heat.

(*d*) Commentar. ad eundem Aphorism.



examples wanting from my own observation, to confirm this. A woman labouring under an hysterical Cholera, and an obstruction of the belly, to whom I had given *Sydenham's* Liquid Laudanum, the pain being alleviated, when I was about to give a gentle Laxative, was sufficiently purged by the opiate, and parted with much greenish stools, nor had she occasion for any other medicine. Yet Opium, as *TRALLER* has demonstrated both by reason and experiment (*e*), by its nature, hinders and restrains the excretion of the belly. And the same remedy, used at another time by that very woman, caused actually a constipation of the bowels of 3 days continuance. Every one knows, that the Bark possesses an astringent quality. I have happily cured with it several Diarrhoeas; and remember a very dreadful Gout to have arisen, from a Suppression of a Dysentery by its improper use. But I had one patient, a man of a costive habit of body, who was relieved by neither gentle, nor strong Cathartics, but only by the Cortex Peruvianus, by the continued use of which he at length came to have stools regularly. Cantharides themselves are a notable example. These are known often to produce Dysuria, and even Ischuria (*f*).

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But

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(*e*) *Tract. de usu opii salubri et noxio. Sect. I. Cap. 2. § 14* page. 143 sqq.

(*f*) *CUSSON in Ill. BOISSIER de SAUVAGES Nosolog. Method. Tom. 3. Part 2. Pag. 371*, refers this Ischuria to the Nephritic ones. i. e. to those depending on an inflammation of the kidneys. It follows then, that Cantharides don't produce an Ischuria, without previously inflaming the kidneys. But that that does not always hold good, I at length learned lately by a plain example. A certain Barber, desirous of going beyond his razor, had applied two large blisters to the thighs of a girl, violently afflicted with a flying Gout. Immediately a Dysuria, and at length an Ischuria, ensued from thence. On the 3d Day of the disease I was called in, and found all the symptoms of a spurious Ischuria, but none of any inflammatory fever, or Nephritis. I ordered the patient daily to drink great plenty of warm milk, in which the best Manna and Nitre were dissolved. This produced



But in a dropfical patient, I have feen thefe taken internally, produce a very copious Diurefis. Nay farther, I have by the fame method, cured a very grievous kenal Ifchury, which would not yield to any other remedy, not even to the Spir. Salis, at other times the moft powerful Diuretic, but now, with great difficulty, exciting a drop or two of a thick vifcid humour. What fhould hinder them, but that blifters, which fometimes under certain circumftances, excite fever, fhould in contrary ones, mitigate or even put an end to it. This is not the place to lay down thofe circumftances, under which blifters tend to produce fever; that will be done more conveniently elfewhere. But I think I ought to explain here, how they would fubdue or mitigate the primary fever of the Small-Pox. It is felf-evident, that in order to this, it is previously neceffary to explain accurately the action of Cantharides on the human body, and the nature of this fever. TISSOT (g) hath written, *that the action of blifters hath been hitherto obfcurely fet forth*. What wonder then, that there have been fo many difputes among the learned, concerning their ufe and abufe, and that *laudentur ab his, culpentur ab illis*? But if their action was made plain, we could always accurately and truly determine, whether they would do good or hurt in this, or the other, difeafe. And

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duced a watry purging, relieving the patient much. The urine came away feveral times, but in fmall quantity and watry. By continuing the remedy, and applying at the fame time a vapour bath, in a fhort time the difeafe was perfectly cured. The gout afterwards yielded to extract. Napelli, ufed about 12 days, a critical itch fucceeding. Of what nature was this Ifchury? Was it Nephroftatic? Indeed I think it was. A countryman in a neighbouring village, having alfo the Gout, was at the fame time, by the fame Barber, by an improper ufe of blifters thrown into a fimilar difeafe; another Phyfician being fent for, I know not in what manner he was treated, except that I remember the Catheter was introduced without procuring any emission of urine; and on the 9th day from the fuppreffion, he died in great mifery.

(g) Epift. cit. page 180.



And hence TRALLES wished (b) *that some Physician, for the advantage of more reasonable practice, would fix the use and abuse of blisters, by the same method, which he had endeavoured to lay down on sound and infallible principles, the salutary and noxious use of Opium.* Before I read this, I had already conceived such a design, and had tried, nor have I ceased trying, many experiments, as well on myself, as others, and also on brutes. In the mean time I carefully collected, as I still do, whatever hath been written by others, in praise or dispraise of this remedy. Nor do I despair of finishing these labours, if I am favoured with life, ability and, leisure. Reserving then for another time, the full and compleat explanation of the action of blisters, it may suffice here to have brought only so much of it, as is immediately necessary to explain our present subject. The action of Cantharides is by no means physical, but merely mechanical. When laid on the Epidermis, by the very fine subtile Spicula with which they are armed, they dissolve and attenuate, the Mucus surrounding the capillary vessels, and having by this means removed their natural covering, they enter with more ease the inhalent ducts, and are carried by these to the blood, on which they act in the same manner as on the mucus, lessening the natural cohesion of the particles, seperating them from one another, and dividing them into less globules. The action of blisters then on the fluids, consists in procuring to them a greater degree of fluidity. I believe now it will not be difficult to understand, how blisters avail against the primary fever of the Small-Pox. That that is an inflammatory one, all allow. And in such, the blood is more viscid than in health, and the more viscid it is, or the less proportion there is of diluting serum, to the cruor, the greater is their activity. The same thing therefore necessarily

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(b) Diff. cit. § 19. page 100.



holds good in the variolous fever. This is plainly evinced, by blood taken from a vein being covered with a white crust, like to pleuritic. And the earlier we let blood, whilst the fever is yet slight, the thinner and tenderer is that crust; the later when the fire has now burst out into flame, the thicker and tougher. But TRILLER truly observes, (*i*) that that crust is *a proof of too much thickness and lentor*. Does it not necessarily follow then, that those remedies which dissolve that lentor and viscosity of the blood, bid fairest to carry off the fever? It is an adage amongst the BOERHAAVIANS, *that every inflammatory fever would immediately cease, if all the blood could be suddenly converted into water* (*k*). And an effect similar to this, is produced by Cantharides, disturbing the mixture of the blood, and changing a good part of the cruor into serum. This I have learned from frequent experiments. As often as, for the sake of making them, I have repeated the bleeding, after the application of a blister, the blood has appeared free from any crust, and the cruor copiously diluted with serum, and yet often the same, let out scarce 24 hours before, had been covered with a very tough crust, and had consisted of scarcely any serum. Frequently very acute pleurifies have been cured by one bleeding, not very copious, when blisters were used at the same time; whilst less violent ones, without them, have been scarcely relieved by 4 or 5, and those plentiful evacuations. On resolution, and not on revulsions of the blood, as is commonly concluded, depends in a great measure that remarkable property, by which blisters recommend themselves in other inflammatory fevers, as the Pleurisy, Phrenitis, Cynanche, &c. I wonder that some have remarked it as a surprising circumstance, that a diminution of the frequency

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(*i*) Commentat. de pleuritide ejusque curatione. Cap. 2. § 22.

(*k*) Vid. Ill. TRALLESSII diff. cit. § 14. page 82.



quency and hardness of the Pulse, had followed the application of blisters. But indeed in whatever inflammatory disease I have applied them I have constantly observed this Phænomenon. For how can the pulse continue frequent and hard, when the fever which rendered it so, is diminished? And, as blisters are the most efficacious cure of the disease, so are they also, of the symptoms which attend it. These are often very dangerous, and sometimes absolutely fatal. Here I only mean the more violent ones, Anxiety, Difficulty of breathing, Syncope, Convulsions, Delirium, Stupor. These never attack after the Application of blisters, and if present, on applying them are soon driven away. For all these depend on nothing else, but on that viscid matter, with which the blood abounds, not being able to pass freely thro' the small vessels of the Lungs and Brains, and stopping them up. I am well persuaded that blisters are of use in this Case, rather by dissolving this matter, than by rousing the torpid nature, which most have considered as the cause of these symptoms. Nor in reality are the vital powers weak, but only oppressed. In general this oppression or suffocation takes its rise, only from too great a quantity of humours. But also a proper quantity of blood, or even one less than it ought to be, if joined to Viscidity, may produce all the same effects as result from Plethora. And let me here remark, by the bye, an error frequent amongst common practitioners, that they have scarcely or not at all learned to distinguish when the blood is too thick, and in too great quantity.

S E C T.

## S E C T. IX. E F F E C T II.

*Blifters promote the breaking-out of the Small-Pox.*

**T**HE eruption of the Pustules is apt to err in several Ways. One while, 'tis delayed beyond the usual period of three or four days; at another, being now struck out, they don't keep their station, but sometimes now sink in, and again strike out; at another, many new crops succeed each other. Most people again, in this case, impeach only the torpor of the vital powers, and the too-much lessened and languid irritability of the solids. Others, and indeed with greater reason, attribute the disturbance of the eruption, to too irritable a system of solids, and to spasms. And one of the principal of these, is the famous *Leyden* professor WINTER, snatched from the learned world by a premature death, whose doctrine of the Small-Pox, was published by VAN JUCHEM, in a dissertation on that subject (a). But whence does a Spasm arise in *Inflammation*? Is it not from an unequal distribution of blood through the body? And whence arises this, except chiefly from its viscidness. For what kind of men, for example, are more liable to spasmodic affections, than hypocondriacal ones, who, 'tis confessed by all, labour under a thickness of humours? You see then, that 'tis principally this phlogystic lentor, which hinders the eruption of the pustules. No one doubts, but that these strike out in the manner of some crisis. But nothing is critically excreted, except concocted, that is, reduced to that degree of mobility, that it can be thrown out by the emunctories of the body.

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(a) De variolis atque actione miasmatis variolosi. *Lugd. Bat.* 1755.



body. As long then as the variolus matter is yet unconcocted, that is, thicker and more viscid than it ought to be, so long it either cannot come at all to the capillary vessels, or if by any power and impetus it is driven to, and forced into them, it stops in these very narrow canals, by its lentor obstructs their orifices, and thus hinders its own deposition on the skin. If it be in some measure, but not yet sufficiently concocted, the thinner part may be forced out to the skin, but the remaining, generally by much the greater part, will be yet longer retained in the body, to be more prepared and dissolved by the vital power. When this happens, 'tis no wonder that the fever does not cease, and that new crops succeed to former ones. And since on account of the viscidness of the blood, yet remaining, the spasms of the solids are not perfectly at an end, but the vessels of the skin are yet more contracted than they ought to be, what can easier happen, than, that the pustules which have already risen, should be likely to sink. I have never observed any of these things, when blisters have been applied immediately at the beginning. For by dissolving and attenuating the lentor of the blood, they remove all the hinderances of an early, and sufficient eruption, and guard against these effects of the Small-Pox, hindered in breaking out, which are dangerous and often fatal. But by this method, does not the eruption break out sooner than is proper, and is not the crisis too much hastened? I confess that the pustules break out sooner. I have seen them, when blisters have been employed the first day of the disease, strike out about the end of the second, or beginning of the third. The greatest authors, SYDENHAM (*b*), BOERHAAVE (*c*), and HOFFMAN (*d*),

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(*b*) Op. page 135.

(*c*) Aphor. 1385. et 1398.

(*d*) Medicin. Systemat. Tom. 4. Part 1. Sect. 1. Cap. 7. Page 50.

condemn the speedy eruption. But for what reason do they condemn it? Because after it, they have observed the fever has not ceased, but continued with violent exacerbations, and dangerous symptoms. But whence is that continuation of the fever? From the variolus matter as I have said, not yet sufficiently resolved. That eruption then is not to be condemned, which happens soon; but that which happens without a previous concoction of all the matter to be excreted. But blisters procure to it, all the thinness, and mobility, which is proper. We may therefore safely rely on the eruption, even if it takes place before the third, or fourth day. Indeed I have always found, the earlier the pustules, so much the more laudable. And RIVERRIUS hath remarked (e) that an eruption of them truly critical, has happened on the first and second day from the attack of the disease. Nor have those things, which are said about the too hasty production of crisis, any weight with me. For that certain and stated days are not essential to a crisis, I have learned by much experience, and been informed by many famous men. Ceteris paribus, a speedier crisis follows a speedier concoction. And why may not Nature, assisted by powerful Remedies, perfect that in a shorter time.

## SECT. X. EFFECT III.

*Blisters prevent the sinking-in of the Pox.*

AS often as this happens, the patients are in great danger, and frequently are destroyed. That the most acute and dangerous diseases, as Apoplexy, Inflammations of the Brain, Stomach, Lungs, &c. have

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(e) Prax. Med. Lib. 17. Sect. 2. Cap. 2. Page 630.



have arisen from thence, has been avowed by Medical writers, and some of them have come under my own observation.

Some persons wonder, how the going back of this matter, which has been often, but a little before separated from the vital mixture of humours, and as long as it remained therein, was perfectly innocent, should be able to effect so speedy havock. And to explain this Phænomenon, they assert, that the matter when retained on the skin, acquires a certain virulent nature, to which those fatal effects are owing. But in the first place, they are mistaken in believing that the variolus matter, before separation from the other mass of humours, whilst it is yet contained within the body, is entirely innocent. For whence, unless from that, can arise those dreadful symptoms, which are so often attendant upon an hindred eruption of the Small-Pox? The passage is easy from Convulsions and Stupor, into Apoplexy and Inflammation of the Brain, or of the Lungs. And of what disease, except of one of these, or of some similar one, do those die, who in the first stage of the disease are sometimes cut off? In the second place, I readily grant that the variolus matter, driven out upon the skin, is rendered more acrid by remaining and stagnating there: But I would not from hence alone derive its noxious qualities, but believe them, rather, to depend on this, that before 'tis thoroughly separated from the blood, being enveloped by its lentor, it finds a less free room for action, but afterwards, this being now resolved, and attenuated, going back free from any involucrum, it falls upon the viscera, and so, much more readily exerts on them its pernicious effects. All unaimously confess, that the efficacy of blisters in reproducing the eruption, after it has sunk in, is exceeding great, and such I have found it in some desperate cases, when I have given at the same time, Sulphur Auratum Antimonii, a medicine

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of wonderful virtue, more than would be believed by those who have not made trial of it. There can be no doubt then, but that they will also hinder the sinking in of the eruption. For how may the Therapeutic, not be a Prophylactic also? But this will more plainly appear, when I shall have demonstrated, that blisters counteract the causes producing the retrocession of the pustules. The most frequent of them is impeded perspiration. As long as that goes on well, we have no reason to fear the sinking in. But as often as, from the admission of cold air, from great terror excited, or from any other cause, that salutary excretion is suppressed, it easily happens, that the Small-Pox is driven from the external upon the internal parts. Another pretty frequent cause, is a Diarrhoea, which encreasing, the motion of the vital humours, is inverted from the surface to the centre, and thus the eruptions, beginning, or already produced on the skin, are drawn by a certain power to the internal parts of the body. I would not to this refer, with others, the weaker vital powers, which, as they with difficulty expel the Small-Pox, so are they unable to sustain them on the surface. For I am well convinced, that a true debility of Nature, except that which is brought on by profuse Diarrhoeas, only takes place in those Small-Pox which some putrid matter produces, and for which my method is not designed. Blisters not only attenuate the fluids of our body, but also stimulate the solids on which they are placed, and excite a greater flow of humours to them. Nor do they do this only, in that part of the skin to which they are immediately applied, but according to the laws of the action of Stimulants, they bring the other parts into consent, and therefore as TISSOT excellently advises (*a*), they rouse up the functions of  
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(*a*) Epist. cit. page 125.



all the skin, tho' applied only to a part of it. But, when the humours sufficiently and abundantly attenuated, are continually driven to the skin, there the perspiration is not only not so easily obstructed, but if by chance it be a little stopped, it immediately returns and is restored. Hence WOLFSHEIMER (*b*) hath with great justice stiled Diaphoretics, heroic medicines. I remember indeed, that some of my patients who were under this method of cure, for want of sufficient care exposed themselves to cold, without suffering any bad consequence from it. And by the same mode of action, viz. by producing a flow of humours on the skin, they guard against Diarrhoea. Hence arose that saying of HIPPOCRATES, *a lax skin, a bound belly* (*c*) For the condition *sine qua non*, as the Philosophers term it, of a lax belly, is a lubrication of the intestines, by a liquid secreted in their glands, and a moistening of the foeces to be voided, by the same liquid. It necessarily follows then, that those things which derive this liquid from the intestines elsewhere, deprives the belly of it. And hence TISSOT (*d*) deservedly recommends blisters, to check that kind of Diarrhoea, with which some patients are seized, at the time of the Small-Pox drying. TRILLER (*e*) hath observed after BAGLIVI, that a dangerous purging in a Pleurisy, was softened by their means. A memorable example of this, has occurred in my practice, which with the Reader's permission, I will here briefly relate. A woman about four months gone with child, towards the end of the Summer, was seized with an acute Pleurisy on the left side. At the end of the third day, I

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(*b*) Disp. de Diaphoreticis, medicinæ universalis loco habendis. Hal. Magd. 1742. hab. § 22. in Schol.

(*c*) Epidem. Lib. 6.

(*d*) Loc. cit. page. 38.

(*e*) Commentat. cit. Cap. 4 § 6. Conf. Page 77.

was call'd in. No remedy had been given in the mean time, but infusion of Veronica and Hedera Terrestris. Outwardly they had applied, as a Cataplasma, rotten Apples, fry'd in Lintseed-oil. I ordered immediately, a vein to be opened in the arm of the side affected, and at least twelve ounces of blood to be taken away. Whilst the Barber was sent for, I went elsewhere. On my return, a few hours afterwards, I found scarcely 4 ounces taken, the Barber giving for a reason, as they said, that the blood was too thick to pass thro' the orifice made. And indeed the very thick and tough crust which covered it, with difficult and highly troubled Respiration, seemed loudly to declare, that the Crasis of the blood was rather solid than fluid. I ordered the Barber to be again sent for, and the bleeding to be repeated, for that I would cause the blood, however thick, to flow out. But the Husband declared he would by no means suffer that, for he feared (which I afterwards learned was owing to the blockhead of a Barber) lest his Wife should miscarry. I endeavoured to remove these fears, but he was made deaf to my persuasions, and even the sick woman herself, who had naturally a dread of bleeding, opposed me with all her might. And I, seeing this, and fearing, according to the Prognostic of HIPPOCRATES (f) *that a Woman with-child, seized by any acute disease, is destroyed by it; that the bleeding might fail, as the disease was so violent, and, as AVICENNA (g) has also declared that if the Pleurisy happens to pregnant Women, it is of very fatal consequence; I thought it not adviseable to force the Woman*

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(f) Sect. 5. Aphor. 31. Which in my Version of HIPPOCRATES in Verse, not yet published, I have thus rendered in Latin.

Fœmina si morbiis gravida infestatur acutis;  
Illam sub leges mors vocat atra suas.

(g) Apud FORESTRUM Observat. et Curat. Med. Lib. 16. Obs. 30.



man in a manner to submit to it, lest if after it, the woman or child should chance to die, I might seem to have killed them, whom I could not save. But I so much more urgently advised a blister to be applied to the side affected, after the manner of MEAD (*b*) and PRINGLE (*i*), and besides, a decoction of roots and herbs, partly emollient, and partly resolvent, with a good deal of Honey to be drank plentifully, I ordered a mixture of Aq. Hyssop. Oxymel. Scillit. Gum. Ammoniac. repurg. and Borax. Venet. of which she was to take two spoonfuls every hour. But the blister was neglected. Hence all the symptoms became more violent, and about the middle of the night, there came on a very profuse Diarrhoea, not only without relieving them, but even with the greatest prostration of the powers, both vital and animal. Being sent for early in the morning I ordered a large blister to be applied to the side, and two others to the calves of the legs. In the space of about seven or eight hours, the Diarrhoea was check'd, the strength a little recovered, the pain lessened, the respiration a little freer, and sweats broke out throughout all the skin, by which the disease was compleatly condemned, and soon after, the sick woman, who had been given over by every one, was restored to perfect health. Nor, which I think is most wonderful, did the Foetus receive any detriment, from this violent disease. For at her proper time, she was delivered of a healthy girl.

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(*b*) Monit. et Præcept. Med. Cap. 1. Sect. 7.

(*i*) Loc. cit. Part 3. Cap. 1. et 2.

## S E C T. XI. E F F E C T IV.

*Blisters render the Eruption of the Small-Pox less.*

**T**HIS remarkable Effect, which blisters applied, even only to promote the eruption, are observed by LENTILIUS (*a*) and TRALLES (*b*) to have produced, I have seen so constant, that I never remember the confluent Small-Pox to have followed their use. Only once or twice have I seen them so numerous as to be little short of cohering. But then, blisters had been only applied after the eruption had appeared. Whence is this Effect to be derived? TRALLES (*c*) says *that Authors who have written on the action of Blisters, have so often remarked that their beneficial Effects were not to be attributed, as owing to the little Serum they evacuate.* TISSOT (*d*) seems to be of the same opinion, who condemning their use as recommended by FRIEND, and other *English* Physicians, against the secondary fever of the Small-Pox, says, *that a doubt remains with him, whether they evacuate the true variolus pus, existing before their application, or only new pus, which they themselves generate.* But I have not the least doubt, but that they discharge a considerable quantity of perfect variolus matter. Tis certain that the Perspiration is the largest of all excretions. And TISSOT himself confesses (*e*),  
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(*a*) Loc. Page 602. I have observed that Blisters not only promote the eruption of the Small-Pox, but that fewer are then produced, the matter being diminish'd.

(*b*) Diff. cit. § Page 115.

(*c*) Loc. cit. § 21. Page 3.

(*d*) Epist. cit. Page 40.

(*e*) Loc. cit. Page 218.



that blisters encrease this, nay even *often excite profuse Sweats* (f). Who can doubt then, but that between both these, an incredible quantity of variolus matter is evacuated. For that in eruptive diseases, not the perspirable matter alone, but also a good part of the eruptive, is at the same time exhaled, we learn plainly by that bad smell, peculiar to each one, which Noses a little more delicate can distinguish. Then, the quantity of Serum which is discharged from the sore is not so little, if we consider how long time it continues. And I know by experience, you may much increase it, by often removing the Dressings. Indeed there are several reasons, which remove all doubt, whether the variolus matter be discharged by these emunctories. But if it is poured out by the other excretory Ducts, as we have shewn it really is, why may it not procure an exit for itself by these, and so much the rather as their mouths are more open, and they have a more plentiful and continued flux of humours to them? And LENTILIUS observes (g), that when the blisters have been early removed, variolus Pustules have covered the skin, which had been before ulcerated: A plain proof, that this is not mere Serum, but that it carries with it variolus matter. Lastly, since otherwise Ulcers, tho' they have had a discharge for a much longer time, heal very readily, and almost as if of their own accord; but these generally are healed very slowly, and often not without the assistance of remedies, called cleansers: I think it cannot be doubted, but that this is owing to some peculiar acrimony of the Serum discharged, and that that ought to be ascribed to no other cause, except a mixture of variolus matter. And TRALLES, by his leave, plainly contradicts himself

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(f) Loc. cit. Page 125.

(g) Loc. cit. Page 291.

self in another place (b), where he believes, that that Phænomenon, which he had so often observed, that by the application of blisters before the eruption, fewer Pustules succeeded, can be no otherwise explained, than, as he says *that the greater part of the Poison was thrown out with the Serum discharged*. Nor should I unjustly, though unwillingly, accuse TISSOT of the same error in Logic, who in his excellent Treatise *in defense of Inoculation* (i), its advantage he in a great measure infers from hence, that from the wound made for the introduction of the Thread, a great quantity of variolus matter flows out, with the Pus.

## S E C T. XII. E F F E C T V.

*Blisters keep the Small-Pox from the Face.*

**T**HE Pustules which appear in the face of patients treated in this manner, are so few, that in general they may be easily counted, and fewer the earlier blisters are applied, before Convulsions, drowsy Affections, Delirium; and the other things which prove that the variolus matter is carried to the Head and Brain, appear; or the Pustules begin to rise upon the face. I am persuaded that those things which I have before commended, about the sitting up, lying, &c. tend not a little to produce this Effect. For every thing is so ordered, as to hinder the flow of humours to the head, which is of itself natural to Infants and Chil-

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(b) Loc. cit. § 22. Page 115.

(i) *Inoculation Justifiée*. Sect. 8. § 45.



Children (a). But yet, this ought to be principally attributed to the blisters. For as TRALLES (b) truly says, *by the laws of Stimulants applied to the human Body, all the force of the Disease ought to be determined to that part, where the Stimulus is fixed, and therefore to be milder in all the other, both external and internal parts.* This revulsion also may be, and is increased, with good success in the two first stages of the disease, by continually applying Pediluvia and soft poultices to the feet, as also by laying blistering plaisters on the soles, each of which severally, particularly the Bath, have been much recommended by many, to draw down the collection of variolous matter from the higher parts: Altho' the great ornament of *Leipsic*, LUDWIG (c), hath properly remarked, that the Effects don't always answer our expectation. But CAMERARIUS (d) intirely condemns their use, saying, *I reckon as a noxious curiosity, that improper endeavour, to draw down, by daily Pediluvia, the Small-Pox to the more ignoble parts, as the feet, lest they should disfigure the face. For by this means, a young Lady of the Netherlands is related to have preserved her beauty, at the expence of an incurable Palsy of her feet.* Is there no danger, lest something of this kind, should follow the application of our blisters? In the first place, it is not proved that that Paralysis owed its origin to the Pediluvia applied. For those things which follow one another, have not on that account, the same relation to one another as cause and effect, principium & principiatum. But granting that the Palsy was produced by

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(a) See FERDINAND CHRISTOPHER OETINGER's curious and learned Treatise, well worth the reading: *An Achorum insitio imitando variolarum insitionem pro curandis pueritiae morbis rebellibus tuto tentari possit.* Tubing. 1762. hab. § 34. sqq.

(b) Diff. cit. § 22. pag. 114.

(c) Institut. Medicin. clin. Part. I. Cap. I. sub. Sect. 7. § 192.

(d) Disp. de variolis. Tubing. 1717. hab. § 36.



the Pediluvia, it ought only to arise from a greater quantity of matter being drawn down to the feet, than what could find an exit there; which being at length retained, and stagnating, by compressing, or in some manner injuring the nerves, hath produced that disease in the same way, as WEDELIUS (*e*) affirms, blindness, or resolution of the Retina is generated by the Small-Pox going back. But now the bad humours drawn down to the feet by blisters, are not retained but run out in continued streams. It is very apparent then, that nothing of this kind need be feared from them. But the revulsion which they cause is of the greatest consequence. Every one knows that the great SYDENHAM (*f*), who was so well acquainted with the nature of the Small-Pox, that BOERHAAVE (*g*) declared, that his works deserved to be read ten times over, judged of all the danger or safety of the disease, principally from the great or small number of Pustules on the face. The most exact observations taught him, that, which those of BOERHAAVE (*h*) confirmed. Nor after these, were there wanting other founders of sound medical practice, who assert, that from thence chiefly we must draw a certain prognosis of the Small-Pox. And at length of late, SAUVAGE (*i*) hath acquiesced in this opinion: *How many soever there be in the rest of the Body, if those in the Face be only few and distinct, 'tis all one, and the Prognosis is much safer.* If I am not much mistaken the reason is very obvious. The Pustules covering the whole face, plainly point out, that the variolus matter

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(*e*) Disp. de amaurosi. Jen. 1705. lib. Cap. 5. Page 21.

(*f*) Op. Page 443.

(*g*) Aphor. 1379.

(*h*) Aphor. 1398. The fewer ——— the more remote the Pustules are from the face, ——— so much the better; the more they occupy the face, ——— so much the worse.

(*i*) Nosolog. method. Tom. 2. Part 1. Page 370.



has fixed its seat in the parts the most noble of all, the Brain, and nervous System; or, that certainly the greatest part is brought hither. But if the skin of the face is not sufficient to receive it all, so that a good part of it remains within; what other than fatal symptoms can be expected. And even when all hath broken out, may it not leave behind some destruction, which may sooner or later prove fatal. And if it goes back or is even absorbed, what other parts will it affect, but those of which it first had possession. But where can the Life be more, or more immediately threatened than in these places?

### SECT. XIII. EFFECT VI.

*Blisters defend the Eyes from all Injury by the Small-Pox.*

**T**HIS Effect is a necessary consequence of the former, for where the whole, that is the Face, is not damaged by the Small-Pox, the same advantage cannot redound to a part, that is to the Eyes. Of how great consequence is this Effect, appears from hence, that the Small-Pox is particularly a very dangerous enemy to the eyes, and most of the remedies hitherto applied for their preservation, are either of no use, unsafe, or plainly hurtful. I reckon amongst the useless ones, rubbing the eye-lids with Gold, which indeed is here of no more service, than the Aqua Carbunculi Aurea, or that costly Cornu Cervi Auratum, in malignant fevers; or drinking out of a gold cup, or a piece of gold put into the drink, for the Jaundice; or gold leaves boil'd in broth, for the Tabes and Atrophy. I think less safe, those warm fomentations continually applied to the eyes, and am well convinced, that all things which promote a flow of humours upwards, ought to be carefully avoided, and we should give at-



tention to keep the head cool. I consider as plainly noxious, Repellents, whose application I have both read of and seen, to be always dangerous, sometimes destructive to the patients. And there is but little reason, why I should not refer to this class, that method which some frequently use, of applying Repellents to the eyes, themselves, and Emollients to the rest of the face. To these BERNHARD DE GORDONIUS (a), hath led the way, who orders thus ; *We must take care not to apply Repercutients, lest the matter should be driven to the nobler parts, except to the Eyes, on account of their consequence.* Indeed I don't at all doubt, but that the perspiration, so necessary, will be remarkably disturbed by this singular Contrivance. But is not the glewing up of the eyelids, which always follows a great number of Pustules in the face, an excellent defence for the eyes? So indeed many, and those very famous men conclude. PLATNER (b) says, *that it appears from frequent Observation, that the Eyes, which the Small-Pox damage, are best guarded by the glueing together of the Eye-lids. For so the Light and Air are turned away, which used principally to excite Inflammation of the nervous membranes of the Eye.* MAUCHARTUS (c) says, *that the Eyelids of patients in the Small-Pox are usefully glued up.* And KLEINIUS (d), *that the Eyes which the Small-Pox attack, are best of all defended by the Lids being glued together.* I wonder, since they allow this preparative to be so secure, that no one has hitherto persuaded the patients, to have their eyes artificially closed, which RUSSEL relates, is one of the marriage ceremonies of the Jews at Aleppo, that the Bride's

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(a) Lilio Medicinæ Part 1. Cap. 12. Fol. 8. Col. A. ed. Venet. 1498.

(b) Institut. Chirurg. § 285. in not.

(c) Disp. de conjunctivæ et conæ, oculi tunicarum, vesiculis ac Pustulis. Tub. 1748. Hab. § 9. Page 11.

(d) Interpr. clin. Page 289.



Bride's eyelids are glued together, with common Rōzin, for the Bridegroom to operate his Pleasure. To say the truth, it appears to me very little to be depended upon. MAUCHARTUS (e) indeed affirms, *that he has observed in a great many instances, where the whole skin hath been covered with Pustules, very thick, and those of a bad Sort, and that the Eyes received not the least detriment, when covered by the Lids glued up in time..* But if I am not in a great error, that only proves, that the eyelids may be often closed up, without any detriment. This I willingly, and with good reason grant. For, when I was about seven years old, from the confluent Small-Pox, I was blind for a whole week, yet my sight was preserved safe. But I have known many others, whom not so

*æquus amavit*

*Jupiter.*

Ask, if you please, thousands whose eyes have been injured by the Small-Pox, and I dare lay any wager, there will be scarcely one but says his eyelids were glued together. Van JUCHEM (f) therefore truly writes, *when at the time of the Suppuration, on account of the great swelling, the Eyelids are closed up, or covered with Pustules, when they are afterwards opened, the Sight is become dull, or the Cornea being ulcerated, the Patient has remained all his Life blind.* Nor is the reason difficult. The Pus, although very mild, by rest and stagnation, contracts Acrimony, which is farther increased, by the patients rubbing and crying. The particles of this Pus, or now rather Ichor, which ought to be considered, as so many Spicula, irritate and corrode the surrounding sound parts, and therefore necessarily cause

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(e) Loc. cit. § 15. Page. 16.

(f) Disp. cit. Cap. 3. § 4. Page 17.

inflammations and exulcerations, certainly much easier, than the Light and Air so much dreaded by PLATNER.

#### S E C T. XIV. E F F E C T VII.

*Blifters applied in the Small-Pox, preserve the Beauty of the Face, safe and unhurt.*

**T**HAT this Effect is not to be despised will be easily acknowledged by any one, who has seen the face of patients sometimes so disfigured, that they almost ceased to look like Human ones, and at the same time considers, that amongst the gifts of our indulgent CREATOR, the second place, after Health, is deservedly given to comeliness and gracefulness of person. It will be particularly by much, the more acceptable I trust, to the Fair Sex, so careful of their faces, that HORZIUS (a) alledges,

*One in ten Thousand scarcely will you find,  
Her Life, with Beauty's Loss, to save inclin'd.*

Nor will they longer dread blisters, otherwise so much the object of their fears, but from the hope of preserving so great a good unhurt, will dauntlessly offer themselves to them, and in bearing the pain attendant on this remedy, shew themselves not only Heroines, but Men; nay even Heroes. This seventh Effect is a necessary consequence of the Fifth. Nor is there any reason to fear, lest those few Pustules which break out on the face, should leave deeper marks. In general they leave none, or if any, so very slight ones,

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(a) Disp. de balneis infantum. Tubing. 1758. Hab. § 14. Page 32.



ones, that in time they disappear gradually. Yet if any one wishes not to have these slight marks, opening the ripe Pustules will easily prevent them. This though now destined to a much more useful purpose, viz. To allay the secondary Fever of the Small-Pox, was the means of preserving the Beauty amongst our Ancestors. For this purpose, the chief of the *Arabian* Physicians, AVICENNA (*b*), advises the Pox to be pricked with a golden needle. GORDONIUS (*c*) orders the same thing, saying, *But when they are ripe, let them be opened with a golden Needle.* But I think scissars preferable to needles and pins, since by their means the Pus is easier evacuated. I am not ignorant, that this operation has a bad name amongst the common people, and is thought rather apt to cause, than prevent, the marks from the Small-Pox. Hence you will hear Children seriously exhorted by their mothers, not to break the itching Pustules by rubbing them. And to hinder the young children from doing it, they bind down their hands fast to the cradle. Nay, I remember that the opening of the Pustules, advised by a Physician in a dangerous secondary fever, was not allowed without this condition, that not one upon the face should be subjected to it. And I wonder much that this should seem to the learned HUXHAM (*d*), of no effect in preserving the beauty of the face, and even so hurtful. Indeed the effects of stagnating Pus don't permit one to doubt that those marks are rather owing to the Pustules being not meddled with or broken late, than to their being cut open early. I commend TISSOT (*e*) who agrees to this, and says, *that the excellent FELIX PLATER has well advised,*  
*that*

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(*b*) Canon. Medic. Lib. 4. Cap. de Variolis.

(*c*) Loc. cit. col. B.

(*d*) On the Small-Pox.

(*e*) Epist. cit. Page 66.



*that unless the Pustules are opened early, by the Pus retained, the Flesh is consumed, and little hollow Ulcers thence formed, and Cicatrices left, making marks. The expert LENTIUS (f) advises in like manner, that we may guard against Cicatrices remaining, if by cutting the larger Pustules with Scissars, the exit of the purulent Matter be hastened, before that, having been too long confined within the Cuticle, it destroys the Flesh underneath. That preventative method is rather hurtful, which is attempted by fatty, oily applications, preparations of Lead, and other bad artifices. But when I read HOFFMAN'S (g) method, that when the Pustules begin to dry, the face being first rubbed over with oil of Almonds, Leaves of Gold should be laid on, and not touched till they fall off, I could scarce forbear exclaiming with a loud voice, that Line of CATULLUS,*

*Ridete, quidquid est domi cachinnorum.*

## SECT. XV. EFFECT VIII.

*Blister either intirely prevent, or render very mild, the Secondary Fever of the Small-Pox.*

THE concurring voices of Physicians prove, that this Fever is most dangerous, and that, without it, the Small-Pox would be a disease, curable of its own accord. It is this, to use TRALLES'S (a) expression, which is, *that great destroyer of Mankind, that merciless enemy of the human Race, that dire poison, by the sole help of which, the Small-Pox kills at last.* And, if any, even assisted by the power of Art, are saved as if it were out of the fire, how many tortures must

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(f) Loc. cit. Page 235.

(g) Vid. Act. Phys. Med. Vol. 1. Oes. 214.

(a) Dis. cit. § 22. Page 3. seq.



must they undergo, not to be borne by human patience. That persons heart ought to be of Steel, who without a thorough sense of pity, can see the sick struggling with this most fierce Fever. But by the help of blisters, they are freed from this more immediate hazard of their lives, and from those exquisitely tormenting pains. The eruption being finished, the Pustules have grown, ripened, and dried, without any trouble, generally no fever appearing, or one as mild as possible. But how may we explain this effect? I doubt not but that almost every one will judge it to result by a necessary consequence from the fourth Effect of blisters, as thinking that the secondary fever does not depend, but on the number of Pustules, and as that is greater or less, so this is more violent or slighter. This would be very true, if, as they conclude, the cause producing the secondary fever was Pus absorbed into the mass of blood. But indeed, this does not appear to me so clear, as to leave no room for doubt. Some Phænomena occur indeed, which can by no means be explained by that Hypothesis. You see often the most distinct Small-Pox, accompany'd by a very acute secondary fever. And on the other hand, you see sometimes the most confluent attended with scarcely any, or a very slight one. How one can reconcile these with the cause assigned for the secondary fever, I am not so quick-sighted as to find out. I am much mistaken, if, that being laid down, it is not absolutely necessary that a violent secondary fever always should attend the confluent Small-Pox, and either none at all, or a much milder, the distinct kind. Whence then is this fever? I have nothing but some conjectures to offer. For, I should think with the greatest deference to the opinion of others, that frequently in the eruptive Stage, the whole mass of variolous matter is not yet sufficiently fitted for excretion, and therefore re-

mains mixed with the blood. Hence it happens, that though there be a very copious eruption on the skin, yet the patient is nevertheless not relieved, but the symptoms of the first stage go on with the same vigour, because nature endeavours by the assistance of the fever, to subdue and concoct the remaining matter. This being concocted, the fever grows more violent, because nature now urges its excretion. The variolus matter is again determined to the skin, but does not find an exit there, either that this, already thronged with a very thick crop of Pustules, is incapable of receiving more, or, that the exhalant vessels are constricted by Spasms. So when it can go no farther, it is deposited in the Cellular membrane. And from thence the face and limbs swell. Nature in the mean time, to free the body from Sordes, excites a Spitting or a Diarrhoea, by which the bad humours are thrown out. And this is the favourable event of the secondary fever. But if the variolus matter is not deposited in the Cellular membrane of the skin, but of the internal Viscera, or returns from the former to the latter, or lastly, there is no evacuation, or not a sufficient one, by Spitting and Diarrhoea, the patient, without the intervention of some powerful art, yields to inevitable fate. And hence I think it fully appears, why the Small-Pox of both kinds, distinct and confluent, are one while accompanied by a secondary fever, another while not. Hence may be given the reason of many other Phænomena, otherwise inexplicable, which, not to be too tedious, I reserve for another occasion, when I shall explain professedly, this my Hypothesis concerning the secondary fever of the Small-Pox, and endeavour by just arguments, to make it appear more probable. Blisters then, to return from my digression, so guard against or lessen, the secondary fever of the Small-Pox, that from the continued evacuation supported by them,

none,



none, or very little, of the variolus matter remains in the body, to stir up and excite it. For I believe those febrile motions which used to be observed depend rather on Suppuration, which cannot be supposed to take place without Fever.

## S E C T. XVI. E F F E C T IX.

### *Blisters hinder the Leavings of the Small-Pox.*

**I**T appears from very numerous observations, the mere quotations of which would fill many pages, that hurtful diseases of various kinds, attack patients who have gone through the Small-Pox. Tissot (*a*) has reduced these to three classes, asserting that some arise from the strength being cast down by a violent disease; others, from Pus deposited somewhere; others from some part being injured. But blisters not only render the whole course of the disease so mild, that no prostration of strength can ever arise, but also perpetually cast the vicious humours out of the body, and by that means, defend the parts from all injury, particularly since they force it to flow from the nobler, to the more ignoble ones. It therefore cannot be, but that they defend the patients very powerfully and efficaciously, from the remains of the Small-Pox. Yet in the mean time, I advise them, not immediately after their recovery from the disease, to indulge themselves in too great security in the intemperate use of foggy and cold air, and of such meats and drink as they like, indiscriminately. After the cure, according to the

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state

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(*a*) Epist. cit. Page 75.

state of the patient I exhibit in due time a laxative, or cathartic medicine, and if there seems to be occasion, repeat it at proper intervals. I heal the ulcerated legs, if they don't yield to plaisters of Lead, by essence of Myrrh, prepared without an alkaline Salt.

A SPECI-



A  
SPECIMEN  
OF  
MISCELLANEOUS OBSERVATIONS,  
ON  
MEDICAL SUBJECTS.

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Ἡ δὲ ποικιλία τερπνόν.

PLUTARCHUS.

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MDCCLXVII.







A

S P E C I M E N

O F

Miscellaneous Observations,

O N

M E D I C A L S U B J E C T S.

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O B S E R V A T I O N I.

E X T R A C T of H E M L O C K.

**T**HE great STORK of *Vienna*, was believed by himself, and others, to have been the first who exhibited the Extract of Hemlock; but that it has been used long before him, I learned from a Dissertation of CHRIST. GODFRED STENTZIL, *de Anodynorum virtutibus venenorum. Viteberg. 1735. hab. § 23. Page 32.* where he writes, *that he well knew a Physician, who frequently with the desired Success, made use of the Extract of Hemlock in the Dropsy.*

O B S E R-

## O B S E R V A T I O N II.

## A Bad CONFORMATION of the STOMACH.

I N the Anatomical Theatre at *Tubingen*, I formerly saw extracted from a Female subject, who had been beheaded, a Stomach, which distended with wind, was perfectly round, without any marks of a Curvature, but plainly in the form of a Cylinder. It was also very thin, and so small, that its diameter was less than half the natural one. — I don't doubt then, but this Woman, on account of the depraved Structure of her stomach, was liable to many inconveniences, such as the Heart-burn, Nausea, and Vomiting. And I wonder, that SAUVAGE, in his *Nosologia Methodica* entirely omits this cause of those diseases, although before him, FORESTUS (a) had ascribed sickness of the stomach, to its narrowness and roundness. If I am not much deceived, under one or both of these faults, laboured the stomach of a Man of 40 years of age, who as well as I can recollect, was afflicted with this inconvenience, that, as often as he eat as much food, or even half as much, as those who dined or supped with him bore without any trouble, he was forced to throw it up again. After he had in vain used the remedies of a number of Physicians and Quacks, who accused the weakness of the stomach, I ordered as FORESTUS advises, that he should use food easy of digestion, frequently, and but little at a time. And as long as he observed this, he remained free from vomiting.

O B S E R-

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(a) Observat. et Curat. Med. Lib. 18. Observ. 34. et in Schol.



## OBSERVATION III.

## BARRENNESS from a CALLOUS UTERUS.

A Married Woman, advanced in years, who was dissected at *Tubingen*, had had no children by her husband. Eager then to see if there was in her, any hinderance to Conception, we began to examine nicely the organs of Generation. The External, together with the Vagina, were quite free from fault. But the whole mouth of the Uterus, with a considerable part of the adjoining cavity, the edges being grown together, had become callous.

Hence is resolved the doubt of the learned SCHULZ (a), who writes thus; *Authors mention the growing together of the Sides of the Uterus, which, whether it was ever truly found to have been the cause of a Stoppage of the Menstrua, or of Barrenness, I find no where confirmed by faithful Observations.* Whether, or no, this Woman had her Catamenia, I could not learn.

G

OBSER

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(a) Patholog. special. Adpend. de morb. Mulier. et Infant. Sect. 1. Subject, 1. § xlviii. Page 16.

## OBSERVATION IV.

The MENSES breaking out, after the BIRTH  
of the FIRST CHILD.

A Married Woman, about 40, complained of many inconveniences, the cause of which she attributed to suppressed Menstrua, and desired me to reproduce them by proper remedies. On enquiring into their proper state, she related to me a wonderful story. For she said, that whilst she lived unmarried, she never had her Menstrua, yet enjoyed no less perfect health, both of body and mind. That at the age of 28, she married, soon conceived, and at her proper time was happily delivered. After the child was weaned, she then first, had the menstrual discharge.

Some perhaps may judge, that in the parts of generation of this Woman, there was some hinderance to the eruption of the Menstrua, which was removed by the first coition, which in general is the sharpest. But I would have these consider, whether we can suppose an obstacle of this kind, but it must have caused the mind, body, or both together, to be grievously affected.

OBSER.



## OBSERVATION V.

## A COLLECTION of WATER in the JOINT.

**A** CURRIER, of the City of DELFT, had long had a soft pale cold Swelling in the Joint of his left knee. On moving the joint, a fluctuation of the Serum collected there might be easily perceived. And hence, that foot was difficultly moved, and not without pain. As many remedies, both internal and external had been applied in vain, they called in my brother-in-law, Dr. WILLIAM HENRY MOESNER, a Physician of that city, well skilled in Surgical matters. He applied what he called, his Dissipating Plaister, and the patient in three or four weeks was intirely well, the Tumour having resolved gradually. As I saw the quite unparalleled effect of this plaister, I desired him to communicate to me its composition, which he very readily and kindly did. It consists in Gum Ammoniacum, dissolved in the sharpest Vinegar, or which is better, in that of Squills, and the solution is inspissated to the proper consistence of a plaister. As I have several times made use of this very simple plaister, I can justly testify that it has not its equal, in dissipating hard scirrhus and scrophulous Tumors, not too much confirmed by time. It merits particularly to be commended against swellings of the Testicles, arising from the Gonorrhoea, (as is commonly said) falling down into the Scrotum, in resolving which, 'tis of excellent service. I know indeed, that the Emplastrum de Ranis with three or four times the quantity of Mercury has been applied to these with good effect, but whether its use is sufficiently safe, I confess is a great doubt with me.

That experienced Physician of *Triers*, COHAUSEN (a), mentions, that *Mercurials* are never to be laid upon the *Testicles*, since they are observed to produce, *Frigidity* and *certain Sterility*. And mention is made, of a certain noble Youth, by ORTHÆUS (b), who had received from a Surgeon, an ointment made of *Quick-silver*, to destroy *Crab-lice*, but after having used it several times, he found the *Penis* plainly cold and torpid, and quite unfit for *Venery*. And I knew a Man, who before had always sufficient inclination for Women, after a *Veneral Testicle*, contracted by lying with a woman infected, cured by a Barber, by the use, or rather abuse, of that plaister, was afflicted with *Impotency*, bestowing hearty curses on the Barber.

## OBSERVATION VI.

## A CASUAL CURE of a SLOW FEVER.

A Youth, about fifteen Years of age, before robust, had began sometime since to grow pale, to be tired and emaciated, without any visible cause. There came on a loss of appetite, great thirst, a slight evening fever, and night sweats. The best remedies were given by the best Physicians, and carefully taken by the patient. But he was so far from getting better, that he rather grew every day worse. He therefore re-

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(a) *Europ. Arcan. Med.* Vol. 2. Page 268.

(b) In JOH. SCHENKII *Observat. Med. rarior Lib. 4. Cap. de impotentia venerea. Obs. 2. Page 533. Col. 13. Edit. Francos. ad Moen. 1665.* Whence STAHL relates in few Words, that History in his *Disp. de impotentia virili. Hal. Magd. 1697, hab. ibidemque 1707. Recus. § 26.*



resolved to leave off taking medicines intirely, and as long as he might live, to indulge freely his inclinations. What happened? Once at a Feast celebrated with his companions, having drank pure Wine immoderately, he was obliged to vomit, and threw up with it, three large Worms alive. When his drunken fit was over, he perceived himself much relieved, and in a few days was perfectly well. It is strange that the patient never complained of pains in his Stomach or Intestines.

## OBSERVATION VII.

## The SMALL-POX SALUTARY.

**T**HE learned KLEIN (a) hath remarked, that the Small-Pox is sometimes serviceable, and confirms it by two examples, in one of whom he says, a Blindness of two years brought on by a Scald Head, was removed by them, and in the other, a very large hard, cold Swelling of the left Testicle, arising from a Crush, was disscussed also by them. Whilst I lived at the University of *Tubingen*, I knew two brothers, Students, of whom the eldest, about 20, laboured under a Deafness, the youngest, about 17, under a troublesome Asthma. They were seized both at once with the Small-Pox, at that time rife, both within and without the walls. When these were at their height, they were suddenly freed from their former diseases, nor as far as I know, did they afterwards relapse into them (b).

OBSER-

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(a) Interp. clin. Page 293.

(b) Conf. *Nova litteraria Tubingensia* (Berichte Van Gelehrten Sachen.) An. 1755. Pag. 65. seq.

## OBSERVATION VIII.

A FUNGOUS TUMOR cured by SUP-  
PURATION.

**A**N old Woman, who had had for several years, a Fungous Tumor, situate on the Patella of the right knee, falling from a stool on which she stood, hurt it against the stone floor. The bruise being ill cured by a Surgeon, became gangrenous. The Epidermis here and there began to be raised up in little blisters, which being broken, discharged a thin yellowish Ichor, not entirely free from Foetor, the patient in the mean time suffering very great pain. I ordered immediately a fomentation to be made of the Species Decocti nigri (*a*), with the fourest Vinegar, and to be applied to the bruised part, with four-fold cloths, some camphorated Spirits being added just before the application; and this to be renewed every two hours. Internally, half a drachm of the best Bark in powder was exhibited eight times in twenty-four hours: Therefore by degrees, the Ichor became thicker and whiter, and at length a good kind of Pus was generated, which continued to be discharged, till all the Fungous was destroyed: When this was done, the Ulcer healed of its own accord, not the least mark of this humour appearing any longer.

OBSER-

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(*a*) These Species are described in the *Pharmacop. Wirtemberg.*  
Part 2. Page 170. Col. A.



## OBSERVATION IX.

## HEAT and SWEAT of HALF the BODY.

**A**S I read lately in SCHENKIUS's *Observationes Medici rariores* (a), the history of a Nun, *who, as often as she entered the Bath, or used any slight bodily exercise, had a remarkable Redness arose on the right Side, from Head to Foot, the left retaining its natural colour.* I remembered a Boy at *Tubingen*, whom I have frequently seen, who, as often as he becomes warm, has all the parts of the right side covered over with redness, moisture, and sweat, from head to foot, in the left side suffering no change, neither of colour, nor heat, so that he exhibited a very agreeable sight, as one might observe in the face, the parts of the forehead, nose, lips, chin, &c. exactly divided towards the right side, warm, red, and moist, but towards the left, cold, pale, and dry.

## OBSERVATION X.

A SPEEDY SAFE and PLEASANT ANTIDOTE  
against DRASTIC VEGETABLE CATHAR-  
TICS.

**A**N Observation, which, amongst others, more worthy of notice, DIEZ formerly communicated to me, gave occasion to my applying this Antidote

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(a) Lib. 5. Cap. de Cute Obs. Page 699. Col. A.

tidote. In the last War, when the EMPEROR's army encamped at *Zwickau* in *Saxony*, laboured under a great want of forage, they were forced to feed the horses with the young branches of Resinous trees, which they got from the neighbouring woods. But it happened, that in a short time, several of the horses fell sick. DIEZ, at that time, Physician to the army, enquiring into the cause of this calamity, thought it could not be derived from any other, than from the Resin which was swallowed, adhering to the villous membrane of the Stomach and Intestines, and that on this account, the best remedy was to be looked for in Spirituous Liquors, dissolving the Resinous Coagula. He ordered therefore, Malt Spirits to be given to the horses with their drink, the use of which he found so salutary, that not only those in health were preserved from the disease, but such as were sick, were recovered by it.

This Observation gave me much pleasure, and I thought immediately of transferring it to greater uses. A little after, I made several experiments, which I shall relate at another time, to discover the true nature of Vegetable Carthartics, commonly accounted pernicious. From these I learned, that their Drastring nature depended wholly on their Resinous substance not being sufficiently dissolved by the Menstrua of the Stomach and Intestines. It seemed then that I might without Fallacy conclude, that Spirituous liquors would be by much the most useful remedies, against the bad effects of these Carthartics, before any Inflammation has taken place in the Stomach or Intestines. In a short time an occasion offered of trying their Virtue.

A robust Man, asking a Barber his relation, for a Purge, somewhat stronger than ordinary, received a Powder composed of Resin of Jallap, and Scammony, of each 12 grains. He took it at six o'clock in the morning, but not long after he began to perceive an acute griping in his belly, to mitigate which, and



and promote the power of the medicine, he drank plentifully of tea; but in vain. For he not only had no stool, but the griping encreased into dreadful tortures, to which indeed the Barber opposed various medicines from his shop, but without at all relieving them. After dinner, my assistance was required. The belly was yet bound, and so great was the vehemence of the pain, that the patient was scarcely in his senses, and the weeping wife and children believed him at death's door, understanding what kind of medicine he had taken, I ordered some spirituous liquor to be brought. They brought common brandy. I ordered two little glasses to be drank immediately by the patient, and to be repeated 8 times in an hour, till the pains were sufficiently assuaged. The first two glasses gave him but little relief; but another two had hardly got down into the stomach and intestines, but the pains plainly remitted. The third being drank, by degrees they almost went entirely off, and then nine copious serous stools succeeded. These being over, both to strengthen the stomach, and to quiet the remainder of the spasms, a proper dose of Theriaca Veneta was given to the patient in generous wine, hence he slept very mildly all night, the next day being perfectly well, nor complaining of any thing, except thirst and some weakness of the stomach. With the desired success, I opposed to the former, which seemed only owing to the more profuse evacuation of serous humours, Lac Amygdalinum; and to the latter, a stomachic Tincture, which I often use, made of the Extracta Corticis Peruviani, Radicis Gentianæ luteæ, Herbæ Millefolii, & Florum Centaurii Minoris, dissolved in the vinous Liquor of the Essential Salt of Tartar, (i. e. *Terra Foliata Tartari*).



## OBSERVATION XI.

The BARK of the WHITE WILLOW, a RIVAL  
of the PERUVIAN BARK.

FROM the time that the Peruvian Bark began to be known in our part of the world, and used frequently, there have not been wanting Physicians, who endeavoured to find out, some one of the Barks of our own Trees, which might be substituted for this foreign one. And on this account, the Bark of the Ash, and Horfechesnut trees, have been particularly commended. And I also remember both of them used with the best success, in curing Intermittent Fevers, as well by others, as by myself. But yet I have much oft'ner observed them applied to no purpose, so that at last it was necessary to recur to the Cortex Peruvianus. And I know some instances, where their use has done more harm than good.

Reading lately in the *French Medical Diary*, called *The Gazette Salulaire*, the Bark of the White Willow, much commended as a Succedaneum for the Peruvian, I immediately formed a design of making experiments upon a dozen persons of both sexes, who laboured under Intermittent Fevers, and observed with great pleasure, those effects produced from thence, than which better could not be expected from the Peruvian Bark. In exhibiting it, I always made use of the same method, which I used to observe with the Peruvian. I gave only the simple Powder, not mixed with any thing else. I prescribed indeed larger doses, and those to be repeated oftener, and ordered the use of the remedy to be continued a little after the fever was carried off. But to hide nothing, these fevers were all either quotidiens, or tertians: I have not yet had an opportunity of trying its efficacy in quartans. Nor have I ever used  
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it in Remittent Fevers, since against these I have in readiness, a remedy equally easy to be got, which has never deceived my expectations, viz. Vitriolated Solution of Allum, on which D. GERHARD ANDREW MYLLER (*a*), formerly Professor of the University of Gießen, published an academical dissertation a few years ago, and not only in intermitting fevers, but also in other diseases which are otherwise happily cured by the Cortex Peruvianus, the Bark of the White Willow has evidenced to me its virtue. Six drachms of it exhibited in the intervals, after other more exquisite medicines had been applied in vain, entirely carried off a pituitous vomiting, returning by paroxysms, after the manner of a Tertian fever, altho' none such by any means appeared (for neither yawning nor stretching ever preceded it, nor was lateritious urine discharged; certain marks of feverish disorders, depending on the latent venom of an Intermittent or Remittent Fever). I have also more than once seen it of wonderful efficacy in worms, nor did it ever deceive my expectation in strengthening the stomach.

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O B S E R.

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(*a*) Since this Dissertation of MYLLER, which I have cited, is not in every one's hands, I shall here describe the preparation of this excellent Solution, in the Author's own words: *First have ready a saturated Solution of Allum in simple water, already cooled, and also Vitriolic Acid. 'Tis equal whether you use the common Spirits of Vitriol, or the stronger called Oil. Then to the Solution of Allum, which you must take good care to shake frequently, pour in the Acid by degrees, and towards the end even drop by drop, till both are exactly mixed, and the Solution of Allum has deposited its sweet, but at the same time very disagreeable, harsh, and styptic taste, or to use an expression common in the pharmacy ad gratam aciditatem, that is to an acidity, equal, in the opinion of a dextrous tongue and taste, to the pleasant sourness of juice of Lemons fresh expressed.*

 The Dose is from 30 to 60 drops every hour.

C L O S S.



## OBSERVATION XII.

## A REMEDY for the CHIN-COUGH of INFANTS.

*Hi motus animorum atque hæc certamina tanta,  
Pulveris exigui jactu quiescent compressa.*

VIRG.

**A**MONGST the diseases, which particularly infest the tender age of Infants, few use to give the Physician so much trouble as that Cough, which not only on account of its vehemence, but also for its obstinacy, is properly named the Tussis Ferina. Indeed, altho' I have always, with the greatest care and solicitude, opposed to it, as often as I met with it, remedies of all kinds recommended by the most excellent and expert Physicians; yet, for the most part, I did not get the better of it, but slowly, and with difficulty. At length, as it were almost by chance, I hit upon the remedy, which I am going to point out, than which I much doubt, whether any thing can be found speedier, safer, and pleasanter.—A boy of two years old, had been troubled with the Chin-cough several days, and by the too great frequency and violence of the attacks, was reduced almost to the last extremity. His parents had already applied various remedies against the Cough, Sperma-Ceti, Pasta Althææ, Barley-Sugar, Extract of Liquorice, Syrup of Marshmallows, and of Jujubs; but all in vain. Being sent for, I immediately ordered an oily Glyster to be injected, and the breast and region of the stomach to be rubbed diligently, with a Liniment made of Oil of Almonds and Camphor; prescribing at the same time, a mixture made of the distilled Waters of the Flowers of Linden and Elder Trees, Magnesia, Nitre, and Syrup of Wild Poppy, to be drank of frequently. There was no mitigation of the Cough from thence.



thence. The next day I ordered a proper dose of the Emetic Syrup of Angelus Sala to be given by intervals. The boy vomited up much viscid pituitous matter. The Cough seemed to be rendered a little milder, but in a short time began a-fresh equally violent. I ordered the Glyster to be repeated, the frictions to be continued, and a Melliot Plaister, sprinkled with the Powder of Cantharides, to be applied to the arm, and I prescribed a Purgoric Emulsion, made of Sweet Almonds and white Poppy Seeds, with the addition of the Syr. Diacodion Montani. The Cough gave some respite, but not long, returning with its former violence. I began then to think of some other remedy. The Sulphur Auratum Antimonii came into my mind, the remarkable antispasmodic virtue of which I had often experienced in other diseases. I prescribed therefore eight Powders, each consisting of twelve grains of white Sugar, eight of Gum Arabic, five of Diaphoretic Antimony, not washed, three of pure Nitre, and half a grain of Sulphur Auratum Antimonii, three times precipitated, ordering that one should be given every three hours. The Cough was wonderfully quieted, nor deserved longer the name of Ferina. By repeating the use of the remedy, it entirely ceased. These Powders produced neither vomiting nor purging, but only sweating, and in proportion as that increased, the Cough diminished. They said the exhaled matter had a very foetid smell. Thus, therefore, by eight grains of Sulphur Auratum Antimonii, a very violent Cough was conquered, and the miserable patient restored to perfect health. I afterwards, also, in other children, experienced, and admired, a like speedy and happy effect of this remedy.

If I am not egregiously deceived, this observation affords a clear light, for the understanding the Proximate of this Cough. Many commend the antispasmodic virtue of Sulphur Auratum Antimonii, but are not very careful in determining those kind of Spasms, in which  
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it chiefly manifests that power, whilst it cannot be doubted, but as the original of all is not the same, so also the same remedy cannot be opposed to all. But I have learned from many observations, and those accurately made, that the Sulphur Auratum Antimonii avails, as if specifically, against those Spasms, which are excited by some acrid matter to be carried off by the skin. From Miliary Eruptions, Small-Pox, and Measles, not breaking out easily, or going back from the surface of the skin to the internal parts, and also from the Itch and Scall'd Head driven back, by unseasonable and improper preparations, generally vehement Spasms arise, which advance even to Convulsions. You will get the better of these by no remedy more certainly or sooner, than by the Sulphur I am speaking of. I have seen more than one example where all the powders, mixtures, and tinctures of Bezoar, yea even Cantharides themselves, Camphor, Oleum Cajepoet, & Oleum Animale Dippe-  
lianum, at other times very efficacious remedies, having been used in vain, a few grains of this, exhibited in divided doses, by producing a gentle sweat without any commotion of humours, have quieted the most violent Convulsions, as if by some enchantment. Since this is so, and that the Sulphur Auratum Antimonii quiets in like manner the Hooping Cough of Infants, by the help of sweating, I know not but it may be truly suspected, that that is excited by a like acrid matter. But I have a stronger reason to persuade me of this. This Chin-Cough is never Sporadic, but always Epidemic, and comes on at that time, when acute eruptive diseases, such as fevers which are called Patechial and Scarlet, the Small-Pox and Measles, rage. There is particularly a great affinity between it and the latter. I have often observed the Children of one and the same family afflicted, some with the Chin-Cough, whilst others had the Small-Pox, or Measles. Nor are examples infrequent, of Children who have been long and much tormented  
with



with this Cough, on the breaking out at length of the Small-Pox, or Measles, being immediately freed from it. I have often also seen where the Small-Pox and Measles have been ill-treated, or no medicines have been given after their cure; the Infant seized with the Chin-Cough. I omit giving other testimonies of this affinity, as I propose treating this subject, particularly elsewhere. Since therefore all allow, that those eruptive diseases are generated by some acrid matter, who will doubt, but that the same only a little differently modified, produces the Hooping-Cough of Children.

*F I N I S.*

